

**Claims**

1. Material for cartilage-like material substitution comprising a fibre-reinforced from monomers polymerised hydrogel, whereby this contains 10 - 70 % (m/m) swellable  
5 fibres (based on the dry matter) and whereby 1 - 5 % (m/m) (based on the dry matter) of a substance that contains ionised groups has been added to said hydrogel.
2. Material for cartilage-like material substitution according to Claim 1, wherein said hydrogel comprises a polymer based on hydroxyethyl methacrylate (HEMA).
- 10 3. Material for cartilage-like material substitution according to Claim 1 or 2, wherein said substance containing ionised groups comprises methacrylic acid.
4. Material for cartilage-like material substitution according to Claim 3,  
15 comprising 1 - 5 % (m/m) methacrylate.
5. Material for cartilage-like material substitution according to one of the preceding claims, wherein said fibre comprises a fibre saturated in liquid.
- 20 6. Material for cartilage-like material substitution according to one of the preceding claims, wherein said fibre comprises a fibre based on polyurethane material.
7. Prosthesis consisting of a material for cartilage-like material substitution according to one of the preceding claims.